

# OREGON

# TUALATIN



January 1986

# VALLEY

# AMATEUR RADIO CLUB

Po Box 5132 Beaverton, Oregon 97006

EDITOR: AL BERG WB7SIC

Membership: 252

CIRCULATION 280

President: Greg Milnes  
Vice-Pres: Willis Ranes  
Secretary: Jeff Freedman  
Treasurer: Randy Stimson

W7AGQ  
N7DZR  
K7JF  
KZ7T

Trustee: Linda Cereghino  
Trustee: Randy Cobb  
Trustee: Al Berg  
Trustee: Warren Knight  
Trustee: Dee Lynch

N7CZY  
KA7HJT  
WB7SIC  
N7BIJ  
KA7NPN

MEETING: 2nd WEDNESDAY BEAVERTON ELKS AT 7:00 p.m. (Dinner at 6:30 p.m.)

MEETING PROGRAM: COMPLETE PROGRAM DETAILS CAN BE FOUND ON THE BACK PAGE.

The first and most important item for this month is the slate of officers elected at the December meeting. We had five changes out of the nine positions which is the same thing we had occur at last years elections. A certain amount of change is healthy for the club and we should all look forward to the new year with some excitement as to what is in store for us in OTVARC. Each year brings us added fine tuning in our overall program and 1986 should be one of our best. Congratulations to the new officers and one mighty tip of the Stetson to those who served so well in 1985.

DUES: As always, we have quite a few members who have not taken care of their dues obligation for the new year. The entire club membership was sent a dues payment form along with their voting ballot so no one should be surprised that it is time to rebuild the club funds. If you have not paid, consider this newsletter a complimentary copy! Those who have paid are the ones who put the stamp on this rag. Next month, in lieu of the 'letter', you will receive a unique reminder and then if we still have a no pay situation, the 'letter' must be stopped. SO-get your dues in and, by the way, doing it by mail makes the treasurers job a whole lot easier. Thanks....

CHRISTMAS PARTY: Paul, WB6SHR, and his capable crew, are to be congratulated for one of the finest parties we have had!! We had a super turnout and the entertainment was great. Don Branda, N7DDK, did an excellent job as MC and, for a change, didn't win the major prize. The Heath WX station went home with Dale Planer, KA7TZU! Our Oregon Section Manager for the ARRL, Bill



Shrader and wife, Judith, KA7OFM, were kind enough to come all the way from Medford to join us. Bill awarded us an ARRL banner as part of the Club Challenge contest. All in all, a super evening was had by all and it is only because of good planning, hard work, great food and the fact that so many members and families supported it. It is very discouraging to committees to work hard on an event only to have light attendance. That didn't happen here! A great evening for all. Thanks to the committee and to the membership for such fine support.....

## W1AW Schedule

October 27, 1985—April 27, 1986

MTWThFSSn = Days of Week Dy = Daily

W1AW code practice and bulletin transmissions are sent on the following schedule:

UTC	Slow Code Practice	MWF: 0300, 1400; TThS: 0000; TThSSn: 2100; Sn: 0300
	Fast Code Practice	MWF: 0000, 2100; TTh: 0300, 1400; S: 0300; Sn: 0000
	CW Bulletins	Dy: 0100, 0400, 2200; MTWThF: 1500
	Teleprinter Bulletins	Dy: 0200, 0500, 2300; MTWThF: 1600
	Voice Bulletins	Dy: 0230, 0530
EST	Slow Code Practice	MWF: 9 A.M., 7 P.M.; TThSSn: 4 P.M., 10 P.M.
	Fast Code Practice	MWF: 4 P.M., 10 P.M.; TTh: 9 A.M.; TThSSn: 7 P.M.
	CW Bulletins	Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M.
	Teleprinter Bulletins	Dy: 6 P.M., 9 P.M., 12 P.M.; MTWThF: 11 A.M.
	Voice Bulletins	Dy: 9:30 P.M., 12:30 A.M.
CST	Slow Code Practice	MWF: 8 A.M., 6 P.M.; TThSSn: 3 P.M., 9 P.M.
	Fast Code Practice	MWF: 3 P.M., 9 P.M.; TTh: 8 A.M.; TThSSn: 6 P.M.
	CW Bulletins	Dy: 4 P.M., 7 P.M., 10 P.M.; MTWThF: 9 A.M.
	Teleprinter Bulletins	Dy: 5 P.M., 8 P.M., 11 P.M.; MTWThF: 10 A.M.
	Voice Bulletins	Dy: 8:30 P.M., 11:30 P.M.
MST	Slow Code Practice	MWF: 7 A.M., 5 P.M.; TThSSn: 2 P.M., 8 P.M.
	Fast Code Practice	MWF: 2 P.M., 8 P.M.; TTh: 7 A.M.; TThSSn: 5 P.M.
	CW Bulletins	Dy: 3 P.M., 6 P.M., 9 P.M.; MTWThF: 8 A.M.
	Teleprinter Bulletins	Dy: 4 P.M., 7 P.M., 10 P.M.; MTWThF: 9 A.M.
	Voice Bulletins	Dy: 7:30 P.M., 10:30 P.M.
PST	Slow Code Practice	MWF: 6 A.M., 4 P.M.; TThSSn: 1 P.M., 7 P.M.
	Fast Code Practice	MWF: 1 P.M., 7 P.M.; TTh: 6 A.M.; TThSSn: 4 P.M.
	CW Bulletins	Dy: 2 P.M., 5 P.M., 8 P.M.; MTWThF: 7 A.M.
	Teleprinter Bulletins	Dy: 3 P.M., 6 P.M., 9 P.M.; MTWThF: 8 A.M.
	Voice Bulletins	Dy: 6:30 P.M., 9:30 P.M.

Code practice, Qualifying Run and CW bulletin frequencies: 1.818, 3.58, 7.08, 14.07, 21.08, 28.08, 50.08, 147.555 MHz.

Teleprinter bulletin frequencies: 3.625, 7.095, 14.095, 21.095, 28.095, 147.555 MHz.

Voice bulletin frequencies: 1.89, 3.99, 7.29, 14.29, 21.39, 28.59, 50.19, 147.555 MHz.

On Monday, Wednesday and Friday, 1400 through 2200 UTC, transmissions are beamed to Europe on 14, 21 and 28 MHz; on Wednesday at 2300 UTC they are beamed south.

Slow code practice is at 5, 7½, 10, 13 and 15 WPM.

Fast code practice is at 35, 30, 25, 20, 15, 13 and 10 WPM.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds. For example, "Text is from July 1985 QST, pages 9 and 76," indicates that the main text is from the article on page 9 and the mixed number/letter groups at the end of each speed are from the contest scores on page 76.

On Fridays, UTC, a DX bulletin replaces the regular bulletin transmissions.

On Wednesdays at 2330 UTC, an IARU Region 2 bulletin in English and Spanish on 45.45-baud Baudot is sent on the regular teleprinter frequencies, beamed to Central and South America. The 2300 UTC Teleprinter Bulletin transmission is also beamed south on Wednesdays.

On alternate Saturdays at 2330 UTC, Keplerian Elements for active amateur satellites will be sent on 45.45 baud Baudot on the regular teleprinter frequencies. The next date for transmission will be given in regular satellite bulletins.

W1AW bulletins are sent on OSCAR 10, Mode B, when the satellite is within range. Look for CW on 145.840 MHz and SSB on 145.962 MHz.

Teleprinter bulletins are 45.45-baud Baudot, 110-baud ASCII and 100-baud AMTOR, FEC mode. Baudot, ASCII and AMTOR (in that order) are sent during all 1600 UTC transmissions, and 2300 UTC on TThFSSn. During other transmission times, AMTOR is sent only as time permits.

CW bulletins are sent at 18 WPM.

W1AW is open for visitors Monday through Friday from 8 A.M. to 1 A.M. EST and on Saturday and Sunday from 3:30 P.M. to 1 A.M. EST. If you desire to operate W1AW, be sure to bring a copy of your license with you. W1AW is available for operation by visitors between 1 and 4 P.M. Monday through Friday.

In a communications emergency, monitor W1AW for special bulletins as follows: voice on the hour, teleprinter at 15 minutes past the hour, and CW on the half hour.

W1AW will be closed on December 25, January 1, February 17 and March 28.

## NEW MEXICO GOES TO 20-KHZ BAND PLAN

Another state has joined the growing list that have opted for 20-kHz 2-meter band plans. Bob Fugate, W8GY, secretary of the New Mexico Frequency Coordinating Committee (NM FCC) advises New Mexico repeater trustees have voted by a 13 to 1 majority to adopt 20 kHz repeater channel spacing. The vote was conducted by means of written, signed ballots following discussions on the subject since April of this year. Seventy-eight per cent (78%) of eligible trustees cast ballots.

All 2-meter repeaters in New Mexico are currently separated in frequency by at least 30 kHz. Action to change the band plan was initiated early this year after several requests for frequency pairs could no longer be satisfied using 30-kHz channels in the 146-148 segment.

Trustees were asked to vote for either 15 or 20 kHz channel spacing with the knowledge that if 20 kHz were selected, some existing repeaters would have to change frequency in order to create new channels and to conform to the 20 kHz band plan.

Based on views expressed by trustees, the New Mexico Frequency Coordinating Committee has adopted a policy that allows trustees to voluntarily change the operating frequency of existing repeaters in the 146-148 segment whose frequency is an odd multiple of 10 kHz (146.01/.61, 146.07/.67, ...147.99/.39, etc.) Bordering Texas and (old) Mexico are already successfully on a 20 kHz 2-meter band plan.

**BULLETIN!** The State of Hawaii has just voted to go to a 20-kHz channel separation band plan on two meters. Their previous frequency coordinator asked to be relieved of his duties and was (effective December 1st) replaced by Robert Ferguson, KH6NP.

DUES--DUES--DUES--ARE DUE!!!

**IMPORTANT: PORTLAND CITY COUNCIL MEETING:** This may end up as a dupe somewhere else in this 'rag' but it bears repeating. Restrictive action may be taking place regarding tower ordinances at JANUARY 22 meeting of the city council. Time is 2:00pm and the place is Portland City Hall in the council chambers room. Again, that is a WEDNESDAY January 22 at 2:00pm. We need numbers (bodies) to show up.....





# SEA-PAC SEASIDE / PACIFIC HAM CONVENTION



## 1986 JUNE 6, 7 & 8



(Formerly OREGON STATE)

(ARRL N.W. DIVISION Status Pending)

**PLAN NOW TO  
ATTEND ONE OF THE  
WEST'S LARGEST  
HAM CONVENTIONS**

### CONVENTION HOURS

Friday, June 6, 5 p.m. to 8 p.m.  
Saturday, June 7, 9 a.m. to 4:30 p.m.  
Sunday, June 8, 9 a.m. to 2 p.m.

NOTE: Exhibitor and flea market setup  
starts at 10:00 a.m., Friday, June 6.

- SEMINARS
- BANQUET & PROGRAM
- NO HOST BREAKFAST
- REPEATER OWNERS FORUM
- QCWA MEETING
- MANUFACTURERS
- PRIZES GALORE
- HUGE FLEA MARKET
- DEALER EXHIBITS
- VE TESTING
- YL ACTIVITIES
- AND MUCH MORE!

### EXHIBITORS:

For early booth reservations please respond via: OTVARC, P.O. Box 5132, Beaverton, OR 97006  
or call Randy, KZ7T at (503) 297-1175 evenings or Al, WB7SIC at (503) 640-5456 evenings

MOTEL ASSISTANCE: IN OREGON 1-800-452-6740 - OTHERS 1-503-738-6391



### REGISTRATION

MAKE CHECKS PAYABLE TO: SEASIDE/PACIFIC HAM CONVENTION  
MAIL TO: P.O. BOX 920, SEASIDE, OR 97138

No. \_\_\_\_\_  
(office use)

ENCLOSED IS MY CHECK FOR \$ \_\_\_\_\_ (U.S. CURRENCY)

- \_\_\_\_\_ Registrations at \$5.00 each (\$7.00 ea. at door)
- \_\_\_\_\_ Teens Convention Registration at \$2.00 each  
(Children under 12 free)
- \_\_\_\_\_ Filet of Salmon Dinner at \$15.00 each
- \_\_\_\_\_ Prime Rib Dinner at \$15.00 each
- \_\_\_\_\_ Flea Market at \$10.00 per table per day or \$15.00 per table for three days

NOTE: Flea market participants must be registered for convention.  
Your ticket packets will be ready at the Registration Booth.

NAMES (Please Print)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**HURRY!** Register early.  
If postmarked on or before  
May 1 you will receive  
an extra prize ticket.

Would you attend \_\_\_\_\_ Circle answer

No Host Sunday Breakfast... yes no  
QCWA Luncheon... yes no

CALLS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# SEA · PAC

## Seaside · Pacific Ham Convention

P.O. Box 5132 · Beaverton, Oregon 97006

### OTVARC COMITTEES AND MEMBERS

(as of 12/6)

Co-Chairman: Al Berg WB7SIC

Vice Chairman: Dale LeBarron W7FBP

Treasurer: Linda Cereghino N7CZY

#### PRINTING

Ron Mayer K7BT  
Brad Beach KA7JLD

#### FLEA MARKET

Gene Buell KA7KBH  
Roger Noyes KA7RNN

#### EXHIBIT AIDS

David Nelson WB7REC  
Wes Allen K7WWG

#### BQT. SPEAKER

Ron Magnus WA7GFE

#### VCR PROGRAMS

Dave Funk N7DWL

#### LADIES PROGRAMS

Kathryn Andrews KA7UMB  
Val Roehl KA7QEV  
Marvel Noyes KA7T2T

#### SEMINARS

Warren Knight N7BIJ  
Dee Lynch KA7NPN  
Alan Roehl KO7B  
John Koenig NB7W

#### SIGNS

Bud Butterfield KC7PS  
Darwin Durr K7PSD  
Ralph Karls WB7VGS

#### EXHIBITORS

Randy Stimson KZ7T  
Al Berg WB7SIC

#### SECURITY

Rick Schouweiler KA5OLH  
Mike Farrell KE7HS

#### PRIZES

Jim Ziegler KA7TAC  
Bud Butterfield KC7PS  
Gordon Bishop KA7RNO  
Linda Cereghino N7CZY  
Mike McQueen KC7U

#### TESTING

Randy Cobb KA7HJT

#### BANQUET MC

Greg Milnes W7AGQ

Some of these committees are by no means closed to added help. If you feel you can be of service, please step forward and let it be known. Hope y'all like the new name? We will see how it goes!



### REGISTRATION

MAKE CHECKS PAYABLE TO: SEASIDE/PACIFIC HAM CONVENTION  
MAIL TO: P.O. BOX 920, SEASIDE, OR 97138



I thank you for your confidence in electing me to head up OTVARC for 1986. I know you join me as I applaud our 1985 officers for the fine job they have done. Especially I single out Geno, KA7KBH, for all his efforts as our "Prez". As I look forward to 1986, I can't help but reflect on the part ham radio has played in my life. I literally grew up with it.

One of my earliest recollections was of the bright glow of a pair of 100th's in my dad's 800 watt CW final. He had been licensed in 1929 or 30 and now has the call of W7CRN. I studied for my novice under my high school English teacher and got WN7AGQ in the spring of 1955. Girls, activities, girls, school work and girls got in the way of my plans to upgrade. It wasn't until I was

in law school that I began to dust off my oscillator and study from an old handbook. A trip to Portland and the FCC office finally brought me my coveted general license. Since then my dad and I have had QSO's from virtually every state and most Canadian provinces.

Belonging to a club never interested me until after I had been invited to speak at an OTVARC meeting. I expected a couple of dozen old fogies arguing about business items. Instead, I was greeted by about 100 enthusiastic hams who were having a lot of fun because of a short business meeting. Well, I was hooked and it didn't take me too long to join.

Ham radio has meant a lot to me over the years. It is a terrific hobby. One way I can repay for all I have gotten out of being a ham is to be active in my club and to encourage others to do as well.

I wish you all a Happy New Year

73 (88 where appropriate)

Greg W7AGQ

## SM REPORT

OREGON: SM: William R. Shrader, W7QMU—STM: W7VSE. SEC: N7CPA. PIO: KC7YN. SGL: KA7KSK. STC: N7ENI. ACC: KB7CC. OO: N7SC. RFI: AK7T. Upgrades: NN7U, W7YCK, WA7RQS, WB7EBG, N7OEX, KE7KA (Extra): N7GSC (Advanced): N7HMY, WB7PYQ, KA7KLK, KA7TGY, N7MME (General): KA7VKA, KA7WBA, KA7RAG (Technician): KA7VYN (Novice). Hearty Congratulations! Start saving your pennies for the Salem Ham Fair which will be held on 22 February 1986 at Rickreal. They aim to make it the biggest swapfest in the State. Thanks go out to all those who participated in handling emergency traffic during the recent Mexico City earthquake disaster. There are far too many to mention specifically but it was a chance for Amateur radio to do "its thing" and do it, it did! Amateur Radio in Oregon is experiencing some problems particularly in the VHF/UHF spectrum. Intentional interference is increasing on simplex and on repeaters. Each area, particularly large Metro areas should form interference committees to help combat problems before they become major. Contact S.M. W7QMU for information on how to form an FCC approved Interference Committee. Let's prove we can clean up our own mess. Have a Happy and Prosperous 1986. Traffic: W7VSE 534, K7OVK 198, W7ZB 111, N7FXJ 85, N7BGW 72, W7HLF 65, WA7VTD 45, KA7AID 36, N7DRP 28, AL7W 24, W7LNE 8. (Sept.) N7DRP 158.

## GET WELL SOON

Bill Shrader, our Oregon ARRL Section Manager, is home recovering from his recent heart attack. We hosted Bill and his wife at our Christmas party & as he looked just fine, this news came as a shock.

Let's all join in wishing Bill a speedy recovery & long life. 73 Bill!

## METEOR SCATTER COMMUNICATIONS (courtesy QST)

### Just What Are Meteors?

Meteors are chunks of material usually associated with the debris from a comet. They travel in highly elliptical orbits about the sun. Every day, Earth encounters billions of these meteors. When the meteor's orbit crosses paths with Earth's orbit, the meteor is drawn by Earth's gravitational field into the atmosphere at speeds of about 22,000 to 220,000 miles per hour!

Any object moving at that high speed is bound to have an effect when it collides with an innocent bystander, such as an atmospheric air molecule. The large amount of kinetic energy possessed by the meteor is converted to heat from the friction of entry into the atmosphere. Atoms on the surface of the meteor are vaporized because of the high temperature. These vaporized atoms are contained by the air molecules. The interaction between air molecules and high-temperature atoms ionizes the air molecules and strips electrons from the vaporized meteor atoms.

A trail of free electrons and positively charged ions is left behind the meteor as it races through the sky. This ionized trail is parabolic in shape, with the burning meteor at the head. The size of the meteor and its velocity determine the size of the trail. A typical meteor is about 1 millimeter in diameter, about the size of a grain of sand. A particle of this size creates a trail head of about three feet in diameter and a trail

length of between 12 and 40 miles, depending on speed.

### What Kind of Equipment Do I Need to Work Meteor Scatter?

As with any weak-signal work, a sensitive receiver, legal-limit power amplifier and high-gain antenna will make meteor-scatter communications easier. If you don't have these things, not all is lost!

For 10-meter work, all you'll need for many meteor-scatter QSOs is a standard 100-W transceiver and a three- or four-element beam. If you have a kilowatt amplifier, you'll be able to work even more stations.

At 6 meters, you can use as little as 10 W and a small Yagi to work some of the "big guns"—if you're patient. You'll enjoy a slew of contacts with 100 W and a four-element beam. If you run high power and have a good receiving preamplifier, you'll practically be able to ragchew with other big stations.

On 2 meters, the average station consists of a multimode transceiver, 100- to 160-W amplifier and a single long Yagi. You'll be able to make many a schedule with a setup like this, but if you're interested in random contacts you'll probably want more. A good station for that type of operation might include a pair of long antennas, a low-noise preamplifier and a 500- to 1500-W power amplifier.

Signals at 220 MHz are much weaker, so a better station is desirable. You'll want a low-noise receive preamplifier and a pair of antennas. Although contacts are possible with a 100-W "brick" amplifier, a tube-type amp capable of 300-500 W or more is a big help.



# IN NORVAC ELECTRONICS

644-1025

12905 S.W. BEAVERDAM ROAD  
BEAVERTON, OREGON 97005

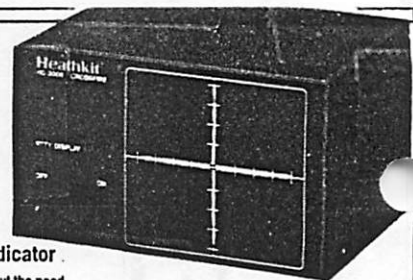
SEMICONDUCTORS  
CAPACITORS  
RESISTORS  
WIRE  
CABLE  
ENCLOSURES  
CONNECTORS  
TRANSFORMERS  
PANEL METERS  
FANS  
TEST INSTRUMENTATION  
TUBES  
HANDTOOLS  
TOOL CASES  
TUBING  
FUSES  
BATTERIES  
POWER SUPPLIES  
LAMPS  
CHEMICALS  
SOLDER SUPPLIES

SOLDER/DE-SOLDER TOOLS  
BREADBOARDS  
WIRE WRAP TOOLING  
KEYBOARDS  
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### Heathkit's HD-3006 Crossfire Tuning Indicator

• Quick and easy tuning of RTTY transmissions, without the need of an oscilloscope or costly equipment

The Heathkit HD-3006 Crossfire is a visual tuning indicator for radioteletype (RTTY) communication. Sixteen LEDs make up the display. Eight vertical LEDs identify mark signal strength; eight horizontal LEDs do the same for space signal strength. Just tune your receiver for maximum vertical and horizontal display - you'll get a strong signal for your computer or printer.

The Crossfire has a wide voltage range and is compatible with almost any interface/terminal unit that has oscilloscope outputs for tuning. Put your scope back on the workbench.

Kit HD-3006, Shpg. wt. 3 lbs. .... 59.95

HD-3006 SPECIFICATIONS: Display: Two 8-LED bars. Each bar requires approximately 14 dB no-signal-to-signal voltage ratio (5:1) for full use of the bars. Input Level: Threshold, 0.3 volts RMS on AC and 0.5 volts DC. Maximum, 15 volts RMS on AC and 15 volts DC. Power Supply: 8-16 volts AC/DC power cube (included with kit). Dimensions: 3 1/2" H x 5" W x 4" D.



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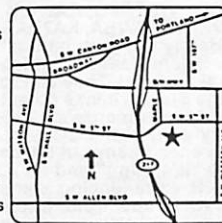
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626-6497

## CUSTOM LEATHER HT CASES

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--Convenience--

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Al Berg WB7SIC

640-5456



## CONTEST CALENDAR

Congratulations go out to all members submitting logs following the Nov. 14 OTVARC Happy Hour Contest. Over 35 stations were logged by the various participants.

Those submitting logs include: KD7LA, WB7SIC, KA7RFD, W7JXU, K7JF, KE7BB, KA7RNO, KA7NPN, KO7B and KA7KBH. The winner will be presented a plaque at the January club meeting. Thanks to all for the excellent comments and participation.....

Based on some of those suggestions, the Contest Committee has elected to run the first annual OTVARC Winter Sprint, to become a part of a year-long Sprint series of contests.

The Winter Sprint will be held between Monday, February 17 and Thursday, February 20, 1986 between the hours of 7-8 pm nightly. Bands will be 2m FM Simplex and 10m SSB. Complete details will be announced in the Feb. newsletter. We are the clubs from around the area to participate with us so look for a lively time to start this new tradition in club contests.

Other contests on this years schedule include:

Annual April Fools Contest  
Field Day  
Fall Sprint Contest (proposed)  
Annual Happy Hour Contest

April 10  
June 28-29  
~~August 18-21~~  
November 13

### BOARD OF DIRECTORS NOTES

The Board met December 18 to discuss upcoming events and to plan for the New Year. Among the concerns and objectives are:

Remodeling of the emergency services trailer  
Field Day and picnic site at Vernonia  
Convention booth for Seaside  
Smoking at meetings  
Ham- oriented programs at monthly meetings  
Doantion to Elks for the use of their facilities  
Solicitation by club President for Committee Chairpersons  
Membership survey by club Secretary by March  
New member campaign-special concessions to novices

All members are encouraged to offer their suggestions and input regarding these topics as well as any other issues for the Board to consider.

An Ad-Hoc By-Laws/Comstitution Committee will be appointed shortly to consider changes in a number of provisions in the clubs rules.

## PUBLIC/EMERGENCY SERVICE

### YEAR END REPORT

Well, 1985 is over for public service and here is the print out of all the people that helped. You will notice that a few did a lot. I hope that we can change this a little in 1986. There was a total of 29 events worked and I would like to thank everyone that helped. I enjoyed working with you and look forward to 1986.

One person I would especially like to thank and that is my wife, Lorna, KA7RFD. Every month she has to decipher my hyroglyphics-actually it looks more like a chicken had run back and forth on the page-but she figures it out, corrects the spelling and types it for me. Thank you Lorna! Again, thanks to all that helped.

Randy, KZ7T

(overleaf for year end report)----->

## 1985 PUBLIC SERVICE RECAP--MEMBER EFFORTS

CALL	NAME	NO OF EVENTS	TTL TIME	TTL MILES
AJ7J	ROGER	2	9	25
K2PO	BILL	1	8	12
K7JF	JEFF	1	6	10
K7WWG	WESS	3	32	230
KA5OLH	RICK	12	69	405
KA7AKU	JEFF	1	2	
KA7APS	BONNIE	1	4	
KA7BSD	DOC	1	3	10
KA7HOJ	JACK	1	8	15
KA7KBH	GENO	2	7	50
KA7KNG	SHERRILL	5	43	535
KA7NPN	DEE	1	10	20
KA7RFD	LORNA	15	109	279
KA7RNN	ROGER	2	5	10
KA7RNO	GORDON	3	18	115
KA7SIK	RON	9	70	290
KA7SSX	JENNY	5	43	200
KA7TDZ	RANDY	1	8	15
KA7Tzt	MARVEL	1	2	10
KA7UFG	PAT	1	4	
KA7UMB	KATHRYN	1	2	10
KA7VXC	JOAN	2	5	
KC7PS	BUD	21	117	998
KE7HS	MIKE	7	43	100
KO7B	ALAN	2	10	22
KZ7T	RANDY	25	217	1,608
N7BIJ	WARREN	1	2	10
N7CRQ	MARK	2	6	30
N7CZY	LINDA	2	6	25
N7DCQ	JOHN	1	4	
N7DUJ	ROY	13	103	747
N7DWL	DAVID	2	6	25
N7DZR	WILLIE	1	8	15
N7EPE	SUSAN	4	22	50
N7GFK	RANDY	4	24	225
NA7T	STEVE	2	8	15
NI7M	BRUCE	1	5	10
NJ7L	GARY	3	6	10
W7AXJ	ERNIE	1	8	15
W7FBP	DALE	3	40	165
W7JWG	BERT	4	32	335
WA6KLA	NEIL	3	42	315
WB7BCW	ELDON	1	8	15
WB7DWR	BOB	1	2	10
WB7FJC	JANET	4	13	24
WB7REC	DAVID	2	16	120
WB7SIC	AL	2	8	25
WB7VSG	RALPH	2	12	80

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TOTAL: 1,235  
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7,235  
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**FANTASTIC**

**GOOD WORK**

**SUPER**



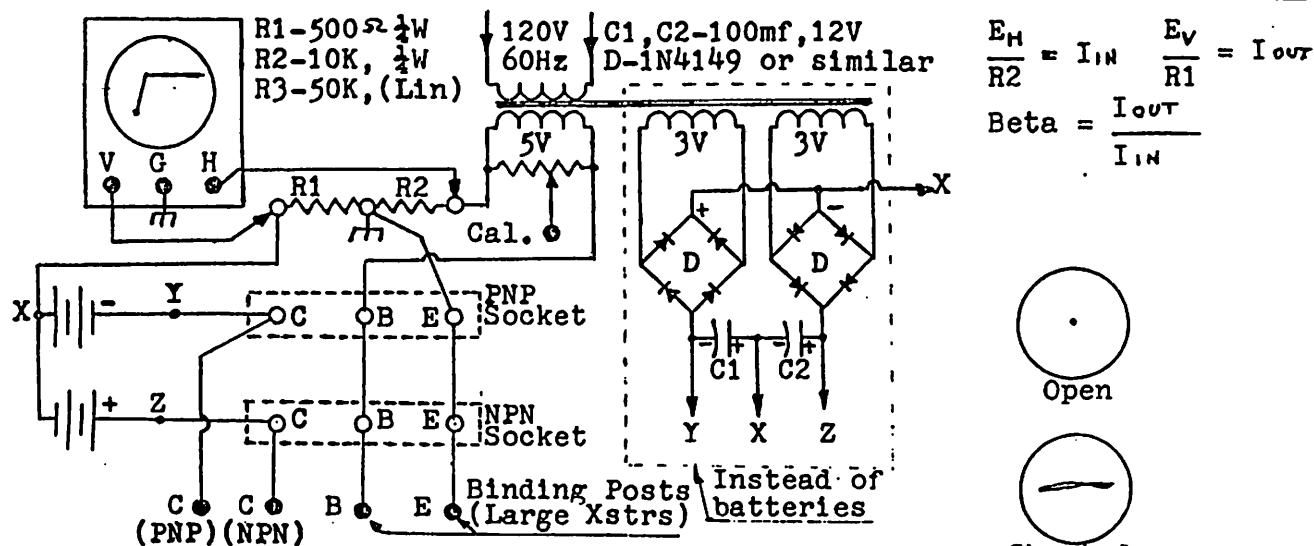


# THIS MONTHS TECHNICAL TIP

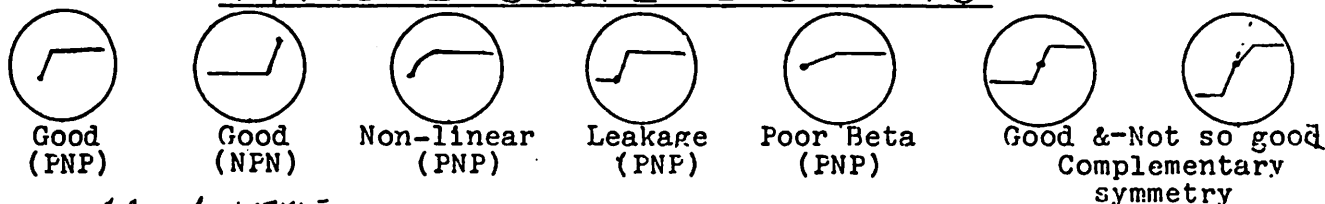
## A DYNAMIC TRANSISTOR CHECKER

Transistors, like vacuum tubes, eventually become 'old hat' to some people and the number used is not as great since the advent of integrated circuits. However, on the chance that someone may still be interested in testing transistors, and since the oscilloscope has for many years been a part of the test equipment in a lot of ham shacks, the checker described here may be of some use. This simple unit, which hams can probably make with parts from the junk box, will check for shorts, opens, Beta (current gain), type (is it a PNP or NPN?), linearity and symmetry.

Any type chassis will do—even breadboard-hardwired for PCB. This circuit shows four size C dry cells for DC power but if you have an aversion to buying batteries, you may want to go the AC route. If so, disassemble any small power xfrmr you may have with a 5 or 6v secondary (or get a Radio Shack 273-1384, which has a 6.3v @ 300ma secondary) and remove the secondary. Count the turns as you take them off and discard the wire. Replace the winding with one having enough turns to give you five volts, using #32E wire. If you divide the number of turns you took off by 6.3 you should come up with about 32-35 turns/volt. Wind on two more windings with turns sufficient to produce 3 to 3.5 volts. I suggest putting a layer of waxed paper between layers of wire and two layers of paper between windings. This will make for good insulation and make winding the wire a lot easier with a white background for that small, reddish colored wire. If you think winding several hundred turns of wire is a lot of work, ask some OT about how it was to hand wind several thousands of turns on a home-brew, class B modulation xfrmr like back in the good (?) old days. If your scope has a calibrator which you can use to set the vertical and horizontal traces, forget R3, the calibrator. Otherwise, set R3 to 4v, using a VOM and prior to testing transistors, set the H and V traces on the scope to the corresponding outputs on the tester and start plugging in transistors, either one at a time or an NPN and PNP at the same time, if desired. 73 & GB



## TYPICAL SCOPE DISPLAYS



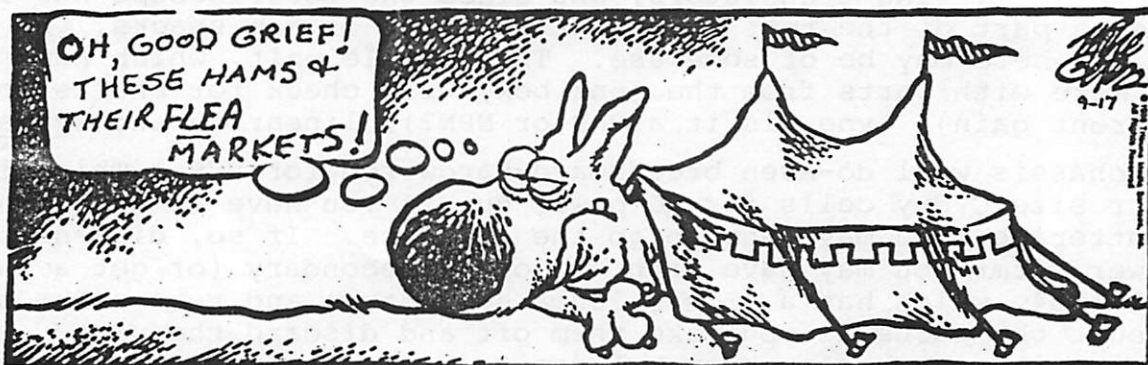
Stayed W9KLE  
 10-28-85

& tnks OEN 'Netter'



## CALL CHANGES & UPGRADES

Gary Johnson, N7GFC went to advanced and a new call of KG6UN. Gary has moved to California, thus the 6 in the call. Don Tuite, KB7TB, upgraded to extra and has a beaut of a new call. He now answers to NR7X. Wally, KC7TB, is no doubt happy about that! Congrats to you guys....



## STORER CABLE COMMUNICATIONS

14200 S.W. Brigadoon Court  
Beaverton, Oregon 97005  
(503) 644-3188

Jeff Wilson has been appointed Sales Manager for Data Communications and Teleconferencing for Storer Communications in Oregon.

In the new position, Wilson is responsible for developing and marketing computer communications services and video teleconferencing to be delivered by Storer's Business Network in Washington and Clackamas Counties.

In 1983 and '84, Wilson was involved in organizing Storer's first data communications efforts with high speed data transmission between sites of large companies in Washington County. In 1985, Wilson managed the development of Storer's Pay-Per-View entertainment service.

Before joining Storer in 1983, Wilson worked in advertising and radio. He earned a bachelors degree in journalism from the University of Ore.. Wilson is a native of the Portland area and he and his family reside in Lake Oswego.

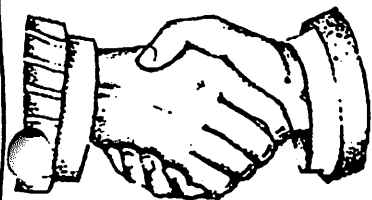
ed. Congratulations to Jeff, KA7UFG, for the promotion. Nice to know we have a member at Storer watching out for stray RF. Hi....

**Trivia!** Did you know that it is against the law in England to print a weekly TV and radio schedule! It's true. Only daily listings are permitted — except for two publications (the BBC's Radio Times and ITV's TV Times) and they only print their own programming!

**Confusing Fact!** Apple Computer founder Steve Wozniak left Apple in February and liquidated his Apple stock. He is now buying back in — \$5 million worth last month alone! Wonder what he knows that we don't?

Did you know that at one time AM radio broadcasting was assigned only one frequency? In 1922 the Secretary of Commerce issued an Order assigning the 360 meter wavelength (833 kHz) to broadcasting. Later on that same year 750 kHz was added. It remained that way until 1924 when the 550-1500 kHz AM broadcast band was established. The band was later extended to 1605 and will get stretched again in 1987 to 1705 kHz making room for approximately another 1,000 stations (depending on power levels.)





## NEW MEMBERS

Welcome to Paul Thorsen, N7HPI. Paul is a tech who resides in NE Portland and shows interest in the MARS program and also in DX activity. Eunice Noyes just got her novice ticket and as of this writing, waits for her first call sign. Eunice lives in Newberg and is Roger (KA7RNN) Noyes' mother. NEAT! Welcome to

OTVARC. Was about to wrap this up and got two more member forms in the mail. Welcome to David Thompson, KA7AUK, who, with wife Terry, lives in Aloha. Terry is a technical writer and lists other hobbies as cars and sailing. Another hello is to James West, who is awaiting his very first call sign. James (or Jim?) also lives in Aloha and he is a technical analyst. One more "welcome to OTVARC" before we put this to bed.....

Dear OTVARC members,

Please let me introduce myself. I am Mike Cockerham, WB7EDL, President of the Farmers Mountain Repeater Association located in Portland. We are a group that is interested in the amateur frequencies and modes above the 2 meter band. We currently have an open repeater located on Mt. Scott in SE Portland. The frequencies are this: 444.675 mhz input and 449.675 mhz output.

We are a new club and our goals are the betterment of ham radio through training of new operators, public education about ham radio and working together with other clubs, such as OTVARC.

I wish to extend a welcome to come up to 450 and visit our machine. Our meetings are on the second Tuesday of the month at 7:30pm in the faculty room of the John Marshall High School located at 3905 SE 91st in Portland.

More info can be had by contacting me on the machine or calling 238-2969. or Fred, KJ7J on the machine or on the 147.28 repeater.

Thank you for your assistance and I look forward to working together with your great group.

Michael Cockerham WB7EDL

Mr. Randy Stimson  
9890 SW Inglewood  
Portland, OR 97225

Re: Amateur Radio Club  
assistance at road races

Dear Randy:

With the 1985 road racing season beginning to wind down, I did not want any more time to go by without thanking you and everyone else from the Amateur Radio Club who were such a big help to us this year.

Sunday morning events are not the most convenient activities to get up for, but you and your crew, especially Loma, Bud, Rich and Bruce, were always on time and well-prepared. On-course communication is so important for both runner safety and spectator information. Your knack of being in the right place at the right time and your ability to communicate the pertinent data to our sound tower made us look much more organized than we really were.

Thanks again, Randy, for your help, interest and enthusiasm with all of our events this year. You and your team made us look good. We look forward to continuing our excellent working relationship throughout 1986.

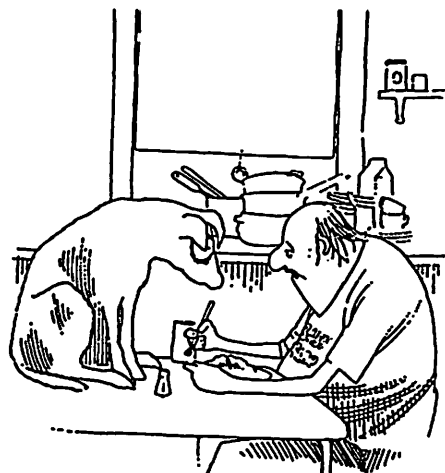
Very truly yours,

*Steve Hamilton*

Steven E. Hamilton  
Race Director

STEVEN E. HAMILTON  
19685 SUN CIRCLE  
WEST LINN, OR 97068

LET'S MAKE 1986 OUR BIG YEAR OF GROWTH! NOT SO MUCH IN QUANTITY BUT IN QUALITY. WE HAVE THE PEOPLE, THE MUSCLE AND THE BRAINS. WHAT IS GOOD CAN BE MADE GREAT-WITH EVERY MEMBERS SUPPORT. HAPPY '86.



"How would you like to get on the endangered species list?"



## "STATE OF THE COPIER"

### REPORT

I realize that most of you could care less about how our Canon NP-155 is doing but as there might be a few of you who do care, here's how "Old Print" is weathering the range. We are now in the 16th month of use and our counter is showing 94,745 copies and, before you get your calculator out, mine shows an average of 5,921 copies per month. You can tell by reading this newsletter that "Old Print" appears to be doing ok. We had some wierd lines on the front of our December 'letter' but that was caused by waiting too long between 'in shack' overhauls. Our 5 page (double-sided) issues run about 3000 copies while the 8 page 'letters' run about 4500. Why the high average of 5,921? Club rosters, forms, ballots, Xmas party invites and more. It also runs a whole bunch for the convention. Going to try to get a total on costs so we can get an average expense figured out. Look for it on the back page and if it isn't there, it will be in next months issue. One last word! The copier was the WISEST expense this club has incurred! No question.....

#### NORTHWEST AMATEUR RADIO COUNCIL

#### Volunteer Examiners Committee

Portland, Oregon

is sponsoring Amateur Radio License Exams for Technician, General, Advanced and Extra at Portland Community College (Sylvania Campus) in the Science Technology (Bldg ST), at 12000 SW 49th, Portland, Oregon. Exams will be held the FIRST SATURDAY of EVERY MONTH!

#### TO REGISTER:

1. Complete FCC Form 610 (be sure to indicate the highest Class of License you will be attempting!)
2. Attach a copy of your Amateur Radio License (if applicable).
3. Make a check or Money Order for four (4) dollars payable to ARRL/VEC.
4. Mail all three of these to:

Randy Cobb/VE Exams

P.O. Box 5097

Aloha, Oregon 97006

5. DEADLINE - Registrations must be received 30 days prior to taking the Exam.

#### FOR ADDITIONAL INFORMATION:

#### VE Committee Members:

Armand, WA7IIM 760-2140

Ralph, WB7VGS 649-5845

Dea, KX7T 632-4734

Lea, AL7W 777-1032

Joan, KD7YB 838-5159

Tom, KV7Y 254-8006

Rozy, KA7CED FCC Contact Liaison 255-0739

## MORE ON RADIO PRIVACY LEGISLATION....

The Justice Department is now on record as opposing radio wave interception falling under the federal wiretap laws. While pending legislation is aimed at computer hackers, industrial spies and listening to private radio conversations, it also will curtail government interception as well. Justice maintains that the proposed "Electronics Privacy Act of 1985" will needlessly complicate their operation. In other words, the bill will make it harder for law enforcement agencies to collect evidence.

The bill (HR-3378) and its Senate companion (S-1667) introduced by Rep. Robert Kastenmeier (D-Wis.) and Sen. Patrick Leahy (D-Vt.) would extend the wiretap laws to include such technologies as cellular radio, electronic mail and satellite transmissions. (See Nov. 1st W5YI Report.) It also will make it illegal to listen to many transmissions currently available to SWL's, scanner enthusiasts and amateur radio operators. A House Judicial Committee hearing on the bill planned for Thursday, December 5th, was cancelled due to a scheduling conflict.

There is a great deal of misinformation about the bill among radio hobbyists. While the bill could impact amateur autopatch, scanner and general coverage receiver use, there is no evidence that it will have any effect on packet radio, RTTY, AMTOR transmissions or amateur originated radiograms as reported elsewhere.

Amateur and CB Radio communications are specifically exempted from the legislation - but apparently not amateur telephone calls - at least not at this point. Congress could even elect to regulate (or eliminate) autopatch calls. Many - if not most - recipients of these wireline terminated calls are not aware that "the world is listening." While there are rumors that the bill's sponsors might exempt amateur autopatch calls from protection by the legislation, powerful, well-funded cellular interests would prefer to eliminate (free) autopatch use completely.

The House judiciary staff did confirm, however, that while manufacture of scanners and general coverage receivers will not be curtailed, the bill makes it illegal to use them to intercept private messages and telephone calls no matter how they are transmitted.

The judiciary is now collecting information on possible changes in the legislation's wording. Your help is needed. You should do more than call or write your Congressman advising opposition to HR-3378 and S-1667. Be specific. Tell your Congressman that whatever the bill says or does ...that you want the bill to permit amateurs to do anything that they can now legally do - including transmitting and receiving any communications now allowed. The bill should also permit short wave listeners, scanner enthusiasts or anyone else that can now legally receive a radio frequency to be able to continue to do so in the future.

Rumors of an amended version of the bill are not true. A "new printed version with new wording" does not exist. We also heard that calls and letters from the amateur community is having an effect on the bill. **W5YI**



# AMATEUR RADIO RELAY GROUP, INC.

OPERATING THE SOUTH SADDLE REPEATERS

P.O. BOX 10031

PORTLAND, OREGON 97210

ALBANY	146.01/.61
ALOHA	147.96/.36
ASTORIA	146.16/.76 146.26/.86 144.57/.17
BAKER	147.66/.06
BEND	146.34/.94
BROOKINGS	146.37/.97
BURNS	146.16/.76
CLATSKANIE	144.75/5.35
COOS BAY	146.01/.61 147.72/.12 147.88/.28
CORVALLIS	146.19/.79 146.22/.82 147.76/.16 (AP)
COTTAGE GROVE	146.38/.98 146.06/.66
EUGENE	146.12/.72 146.08/.68 146.28/.88 147.68/.08 (AP) 147.86/.26 (AP) 144.61/5.21
FLORENCE	146.32/.92 146.34/.94
GOLD BEACH	146.13/.73
GRANTS PASS	146.04/.64
HEPPNER	147.76/.16
HERMISTON	147.63/.03 (AP)
HILLSBORO	144.51/5.11 (CL)
HOOD RIVER	147.70/.10
KLAMATH FALLS	146.25/.85 146.01/.61 147.80/.20
LA GRANDE	146.40/7.00 147.86/.26
LAKEVIEW	146.40/7.00
LEBANON	147.80/.20
MADRAS	147.98/.38
MARYHILL	147.68/.08

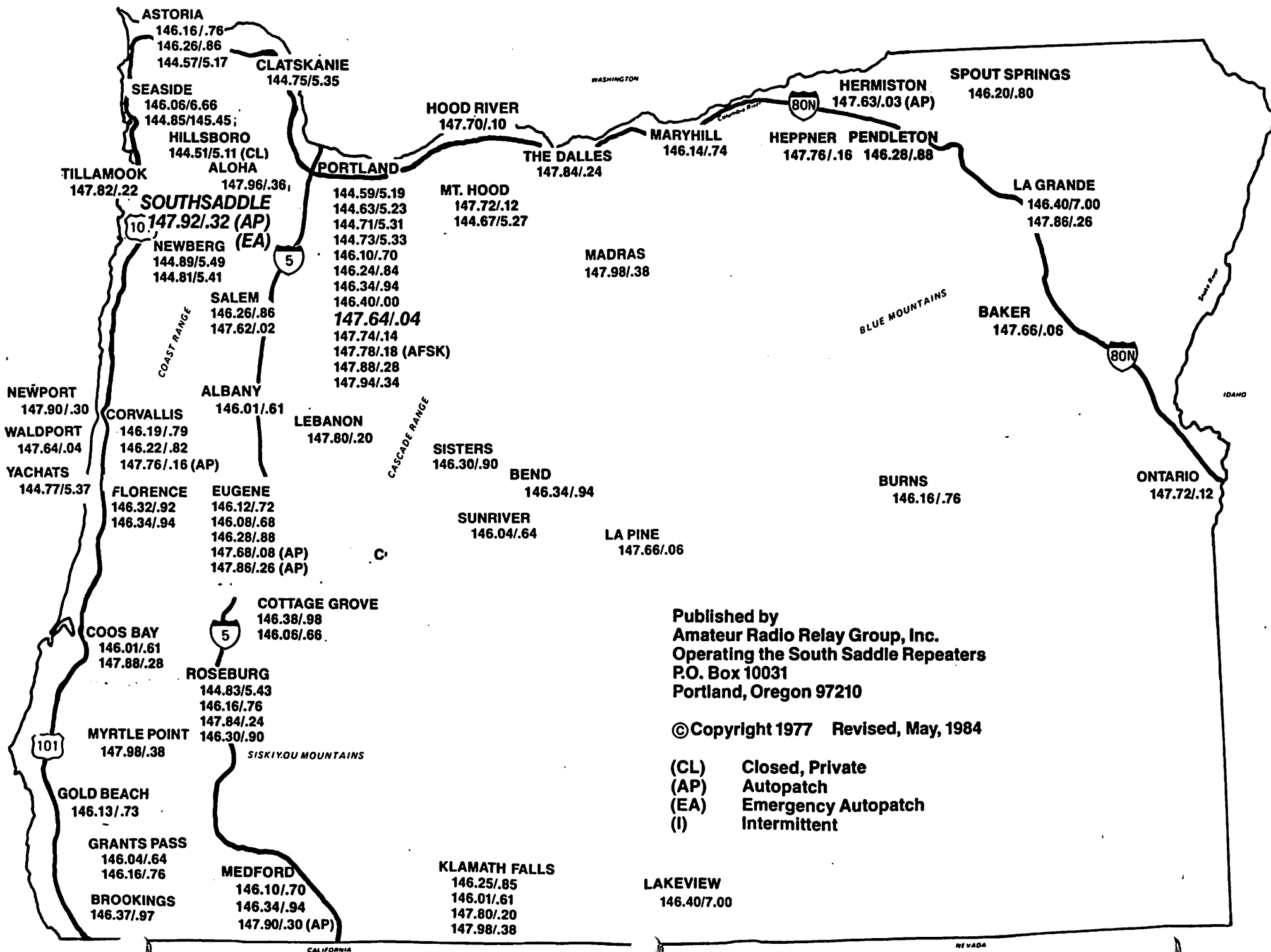
MEDFORD	146.10/.70 146.34/.94 147.90/.30 (AP)
MT. HOOD	147.72/.12
MYRTLE POINT	147.98/.38
NEAHKAHNIE	144.81/5.41
NEWBERG	144.89/5.49 144.81/5.41
NEWPORT	147.90/.30
ONTARIO	147.72/.12
PENDLETON	146.28/.88
PINE MTN.	147.66/.06
PORTLAND	144.63/5.23 144.73/5.33 146.04/.64 146.10/.70 146.24/.84 146.34/.94 146.37/.97 146.40/7.00 147.74/.14 147.78/.18 (AFSK)
ROSEBURG	144.83/5.43 146.16/.76 147.84/.24 146.30/.90
SALEM	146.26/.86 147.62/.02
SEASIDE	144.85/5.45
SISTERS	146.30/.90
SOUTHSADDLE (HILLSBORO)	147.92/.32 (AP) (EA)
SPOUT SPRINGS	146.20/.80
SUNRIVER	146.12/.72
THE DALLES	147.80/.20
TILLAMOOK	147.82/.22
WALDPORT	147.64/.04
YACHATS	144.77/5.37

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(CL) Closed, Private  
(AP) Autopatch

(EA) Emergency Autopatch  
(I) Intermittent



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## MEETING PROGRAM

We shall be greatly entertained at our January meeting by Sandy Mikalow, K700Z. Sandy gave us one of our most popular programs ever about 5 years ago & also filled in for our missing banquet speaker at Seaside last June. His program is a fantastic audio visual astronomy slide show and, as I was told, a tie-in relationship with ham radio. Without the tie-in, it is a show worth seeing. Bring the fam-for this one. You won't be sorry!!



According to the January issue of QST, pg.61, our SEA-PAC Convention has some competition! Our ARRL Division Director has gone into the convention business and has scheduled her own Division Convention to be held ONE WEEK prior to Seaside. It is set for Vancouver, WA, which

we all know is only 80 miles from Seaside. The date, by the way, was a mistake. It is scheduled for May 30-31 and June 1. Some problem in reading a calendar? Rumor is that we turned her down for Division status. Fact is we gave her the formal application, dated Sept, 11, 1985, at an OTVARC Board meeting which she requested be held! The convention is being touted as a training ground for the ARRL National committee. Not true! The subject was never raised at a National committee meeting. We shall go ahead with our planned schedule and trust that our loyal supporters will continue to attend one of the 'best in the west' conventions. Much more next month.....

## QST A PROPOSED NEW ANTENNA ORDINANCE QST

The Portland City Council will hold a public hearing on a proposed new antenna ordinance. We need your support to exempt amateur radio antennas and towers from city height restraints and other burdensome regulations. You can help by signing the petition located at Antronics, Portland Radio or Norvac Electronics. You can also help by attending the public hearing at Portland City Hall on Wednesday, January 22 at 2 pm. For info and updates listen to the ARES net on 147.32 at 7:30 pm nightly.

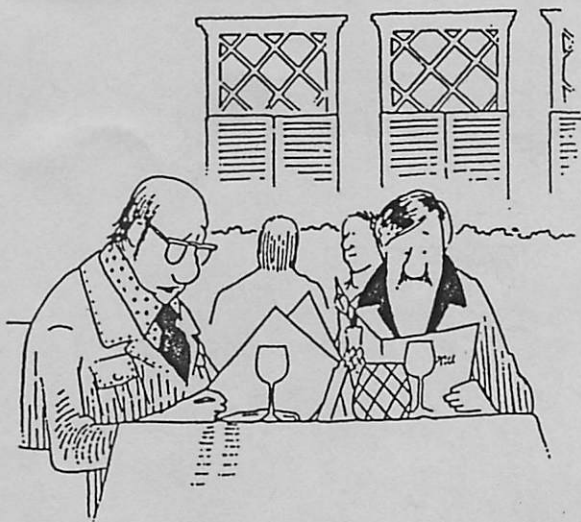
### WHO TO CALL FOR WHAT

*PUBLIC SERVICE	Randy Stimson	KZ7T	297-1175
	Bud Butterfield	KC7PS	649-1523
*CLUB CONTESTS	Jeff Freedman	K7JF	297-7965
*PROJECT NITE	Terry Biggs	WB7CHK	648-3687
*TECHNICAL	Dee Lynch	KA7NPN	646-4580
*CLUB RAFFLE	Jim Ziegler	KA7TAC	246-2539
*MEETING PROGRAMS	Willis Ranes	N7DZR	292-1656
*CLUB SOCIALS	Paul Lucas	WB6SHR	641-8713
*EMERGENCY SERVICE	Willis Ranes	N7DZR	292-1656
*TRAINING (classes)	Randy Cobb	KA7HJT	649-5066
*WELCOMING	Doug Bull	N7CDI	649-4540
*PUBLIC RELATIONS	Randy Stimson	KZ7T	297-1175
CLUB JACKETS	Kathryn Andrews	KA7UMB	629-5676
CLUB BADGES	Jeff Freedman	K7JF	297-7965
ROSTER CHANGES	" "	" "	" "
ARRG INFORMATION	Warren Winner	W7JDT	644-0752
CLUB SCRAPBOOK	Doc Miller	KA7BSD	" "
ARRL MEMBERSHIP	Randy Stimson	KZ7T	297-1175
ARRL LEGAL COUNSEL	Stan Weinstein	KX7Y	635-6883
CONVENTION (Oregon)	Al Berg	WB7SIC	640-5456
NEWSLETTER	" "	" "	" "
RL LIAISON	" "	" "	" "

(indicates committee)

### CLUB ARRL APPOINTEES

ARES District Emergency Co-ordinator	KZ7T	297-1175
ARES Washington County Co-ordinator	WB7BBG	244-7420
ARRL 1988 National Convention Chm.	WB7SIC	640-5456
ARRL Assistant Technical Co-ordinator	K7WWG	649-3295
ARRL Affiliated Club Co-ordinator	KB7CC	297-2732

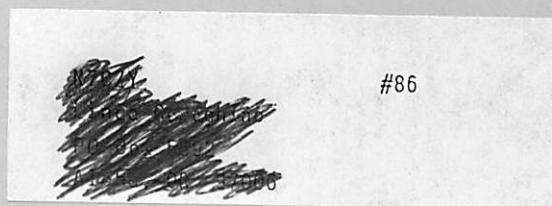


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